EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	516	536/21	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:12
L2	158	l1 and glycosaminoglycan	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:49
L3	61	l2 and depolymeriz\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:49
L4	0	13 and (electron NEAR beam)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:49
L5	907	536/53	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:49
L6	65	I5 and glycosaminoglycan	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF .	2006/08/10 09:50
L7	8	I6 and depolymeriz\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:50
L8	0	I7 and (electron NEAR beam)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:51
L9	1862	536/124	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:50
L10	66	l9 and glycosaminoglycan	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR .	OFF	2006/08/10 09:51
L11	19	l10 and depolymeriz\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:51

8/10/2006 9:56:02 AM Page 1

EAST Search History

L12	0	I11 and (electron NEAR beam)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR.	OFF	2006/08/10 09:51
L13	290	204/157.6	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:51
L14	66	I10 and glycosaminoglycan	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:52
L15	19	l14 and depolymeriz\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:52
L16	0	115 and (electron NEAR beam)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:53
L17	106	204/157.63	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR [*]	OFF ·	2006/08/10 09:52
L18	1	l17 and glycosaminoglycan	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:52
L19	5626	glycosaminoglycan	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:52
L20	257	I19 and depolymeriz\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:52
L21	4	I20 and (electron NEAR beam)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/10 09:53

8/10/2006 9:56:02 AM Page 2

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NEWS 15 JUl 19 Coverage of Research Disclosure reinstated in DWPI

NEWS 16 AUG 09 INSPEC enhanced with 1898-1968 archive

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FULL ESTIMATED COST

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=> s glycosaminoglycan
        116925 GLYCOSAMINOGLYCAN
=> s l1 and heparin
         32089 L1 AND HEPARIN
=> s 12 and depolym?
L3
           947 L2 AND DEPOLYM?
=> s 13 and (electron(a)beam)
  16 FILES SEARCHED...
            11 L3 AND (ELECTRON(A) BEAM)
=> dis 14 1-11 bib abs
L4
     ANSWER 1 OF 11 USPATFULL on STN
AN
       2006:27521 USPATFULL
ΤI
       Biodegradable ocular devices, methods and systems
IN
       Varner, Signe E., Los Angeles, CA, UNITED STATES
       Guire, Patrick E., Eden Prairie, MN, UNITED STATES
       Taton, Kristin S., Little Canada, MN, UNITED STATES
       Wen, Jie, Eden Prairie, MN, UNITED STATES
       Beeley, Nathan R.F., Irvine, CA, UNITED STATES
       Lawin, Laurie R., New Brighton, MN, UNITED STATES
       Hergenrother, Robert W., Eden Prairie, MN, UNITED STATES
       Chappa, Ralph A., Prior Lake, MN, UNITED STATES
       Anderson, Aron B., Minnetonka, MN, UNITED STATES
PΙ
       US 2006024350
                               20060202
                          A1
ΑI
       US 2005-165884
                               20050624 (11)
                          Α1
PRAI
       US 2004-583171P
                           20040624 (60)
                           20050408 (60)
       US 2005-669701P
DT
       Utility
FS
       APPLICATION
LREP
       KARRIE WEAVER, Kagan Binder, PLLC, Suite 200, 221 Main Street North,
       Stillwater, MN, 55082, US
CLMN
       Number of Claims: 49
ECL
       Exemplary Claim: 1
       21 Drawing Page(s)
DRWN
```

The invention provides implantable medical devices that are fabricated

LN.CNT 5734

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

of biodegradable materials for delivery of bioactive agent to limited access regions of a patient's body, such as the eye. The invention further provides methods of treatment utilizing the devices.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 2 OF 11 USPATFULL on STN
L4
       2006:21116 USPATFULL
AN
ΤI
       Biodegradable implantable medical devices, methods and systems
       Guire, Patrick E., Eden Prairie, MN, UNITED STATES
IN
       Taton, Kristin S., Little Canada, MN, UNITED STATES
       Wen, Jie, Eden Prairie, MN, UNITED STATES
       DeWitt, David M., Minneapolis, MONGOLIA
       Hergenrother, Robert W., Eden Prairie, MN, UNITED STATES
       Anderson, Aron B., Minnetonka, MN, UNITED STATES
PΙ
       US 2006018948
                          A1
                               20060126
·AI
       US 2005-165993
                          Al
                               20050624 (11)
PRAI
       US 2004-583171P
                           20040624 (60)
DT
       Utility
FS
       APPLICATION
       KARRIE WEAVER, Kagan Binder, PLLC, Suite 200, 221 Main Street North,
LREP
       Stillwater, MN, 55082, US
CLMN
       Number of Claims: 36
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 4502
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides implantable intraluminal medical devices that are
       fabricated of biodegradable materials. The invention further provides
       methods of treatment utilizing the devices.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 3 OF 11 USPATFULL on STN
L4
AN
       2005:138016 USPATFULL
TI
       Methods for conducting assays for enzyme activity on protein microarrays
IN
       Zhou, Fang X., New Haven, CT, UNITED STATES
       Schweitzer, Barry, Cheshire, CT, UNITED STATES
PΙ
       US 2005118665
                               20050602
                          A1
       US 2004-865431
ΑI
                               20040609 (10)
                          A1
       Continuation-in-part of Ser. No. US 2003-458720, filed on 9 Jun 2003,
RLI
       PENDING
DT
       Utility
FS
       APPLICATION
LREP
       JONES DAY, 222 EAST 41ST ST, NEW YORK, NY, 10017, US
       Number of Claims: 36
CLMN
ECL
       Exemplary Claim: 1
DRWN
       7 Drawing Page(s)
LN.CNT 6014
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates to methods of conducting assays for
AB
       enzymatic activity on microarrays useful for the large-scale study of
       protein function, screening assays, and high-throughput analysis of
       enzymatic reactions. The invention relates to methods of using protein
       chips to assay the presence, amount, activity and/or function of enzymes
       present in a protein sample on a protein chip. In particular, the
       methods of the invention relate to conducting enzymatic assays using a
       microarray wherein a protein and a substance are immobilized on the
      surface of a solid support and wherein the protein and the substance are
       in proximity to each other sufficient for the occurrence of an enzymatic
       reaction between the substance and the protein. The invention also
       relates to microarrays that have an enzyme and a substrate immobilized
```

on their surface wherein the enzyme and the substrate are in proximity to each other sufficient for the occurrence of an enzymatic reaction

between the enzyme and the substrate.

```
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 4 OF 11 USPATFULL on STN
L4
AN
       2005:125479 USPATFULL
       Medical device with multiple coating layers
ΤI
IN
       Wang, Xingwu, Wellsville, NY, UNITED STATES
       Greenwald, Howard J., Rochester, NY, UNITED STATES
PΙ
       US 2005107870
                          A1
                               20050519
ΑI
       US 2004-923579
                          A1
                               20040820 (10)
       Continuation-in-part of Ser. No. US 2004-914691, filed on 9 Aug 2004,
RLI
       PENDING Continuation-in-part of Ser. No. US 2004-887521, filed on 7 Jul
       2004, PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on
       14 Jun 2004, PENDING Continuation-in-part of Ser. No. US 2004-810916,
       filed on 26 Mar 2004, GRANTED, Pat. No. US 6846985 Continuation-in-part
       of Ser. No. US 2004-808618, filed on 24 Mar 2004, PENDING
       Continuation-in-part of Ser. No. US 2004-786198, filed on 25 Feb 2004,
       PENDING Continuation-in-part of Ser. No. US 2004-780045, filed on 17 Feb
       2004, PENDING Continuation-in-part of Ser. No. US 2003-747472, filed on
       29 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-744543,
       filed on 22 Dec 2003, PENDING Continuation-in-part of Ser. No. US
       2003-442420, filed on 21 May 2003, PENDING Continuation-in-part of Ser.
       No. US 2003-409505, filed on 8 Apr 2003, GRANTED, Pat. No. US 6815609
DT
       Utility
FS
       APPLICATION
LREP
       HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST
       ROCHESTER, NY, 14445-2408, US
CLMN
       Number of Claims: 62
ECL
       Exemplary Claim: 1
DRWN
       54 Drawing Page(s)
LN.CNT 18628
       An implantable medical device that contains two coating layers disposed
AB
       above at least one of its surfaces. The first coating layer contains a
       biologically active material; and the second coating layer contains a
       polymeric material and nanomagnetic material disposed on the first
```

coating layer; the second coating layer is substantially free of the biologically active material. The nanomagentic material has a saturation magentization of from about 2 to about 3000 electromagnetic units per cubic centimeter, and it contains nanomagnetic particles with an average particle size of less than about 100 nanometers; the average coherence length between adjacent nanomagnetic particles is less than 100 nanometers.

```
L4
     ANSWER 5 OF 11 USPATFULL on STN
AN
       2005:92457 USPATFULL
ΤI
      Medical device with low magnetic susceptibility
IN
      Wang, Xingwu, Wellsville, NY, UNITED STATES
      Greenwald, Howard J., Rochester, NY, UNITED STATES.
      Gunderman, Robert D., Honeyoye Falls, NY, UNITED STATES
PΙ
      US 2005079132
                          A1
                               20050414
ΑТ
      US 2004-914691
                          A1
                               20040809 (10)
      Continuation-in-part of Ser. No. US 2004-887521, filed on 7 Jul 2004,
RLI
      PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun
      2004, PENDING Continuation-in-part of Ser. No. US 2004-810916, filed on
      26 Mar 2004, GRANTED, Pat. No. US 6846985 Continuation-in-part of Ser.
      No. US 2004-808618, filed on 24 Mar 2004, PENDING Continuation-in-part
      of Ser. No. US 2004-786198, filed on 25 Feb 2004, PENDING
      Continuation-in-part of Ser. No. US 2004-780045, filed on 17 Feb 2004,
      PENDING Continuation-in-part of Ser. No. US 2003-747472, filed on 29 Dec
      2003, PENDING Continuation-in-part of Ser. No. US 2003-744543, filed on
      22 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-442420,
```

filed on 21 May 2003, PENDING Continuation-in-part of Ser. No. US

2003-409505, filed on 8 Apr 2003, GRANTED, Pat. No. US 6815609

DT Utility APPLICATION FS

HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST LREP

ROCHESTER, NY, 14445-2408, US

CLMN Number of Claims: 127 ECL Exemplary Claim: 1 DRWN 52 Drawing Page(s)

LN.CNT 17912

An assembly with a substrate, nanomagnetic material and magetoresistive AΒ material. The nanomagnetic material has a saturation magentization of from about 2 to about 3000 electromagnetic units per cubic centimeter; and it contains nanomagnetic particles with an average particle size of less than about 100 nanometers. The average coherence length between adjacent nanomagnetic particles is less than 100 nanometers.

L4ANSWER 6 OF 11 USPATFULL on STN AN 2005:62607 USPATFULL TI Biocompatible materials Ulbricht, Mathias, Berlin, GERMANY, FEDERAL REPUBLIC OF IN Thom, Volkmar, Arlington, MA, UNITED STATES Jankova, Katja, Burgas, BULGARIA Altankov, George, Sofia, BULGARIA Jonsson, Gunnar, Vaerloese, DENMARK PΙ US 2005053642 20050310 A1 US 2003-362677 20030815 (10) AΙ A1 WO 2001-DK557 20010823 PRAI DK 2000-1250 20000823 DТ Utility FS APPLICATION

LREP

Browdy and Neimark, Suite 300, 624 Ninth Street NW, Washington, DC,

Number of Claims: 125 CLMN Exemplary Claim: 1 ECL DRWN 31 Drawing Page(s)

LN.CNT 6442

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention teaches a novel approach of creating biocmpatible AB surfaces, said surfaces being capable of functionally interact with biological material. SAid biocompatible surfaces comrise at least two comonents, such as a hydrophobic substratum and a macromolecule of hydrophilic nature, which, in a cooperativity, form together the novel biocoompatible surfaces. The novel approach is ased on contacting said hydrophobic substratum with a laterally patterned monomolecular layer of said hydrophilic and flexible macromolecules, exhibiting a pronounced excluded volume. The htus formed two component surface is, in respect to polarity and morphology, a molecularly heterogeneous surface. Structural features of said macromolecular monolayer (as e.g. the layer thickness or its lateral density) are determined by: i) the structural features of the layer forming macromolecules (as e.g. their MW or their molecular architecture) and ii) the method of creating said monomolecular layer (as e.g. by physi- or chemisorbing, or by chemically binding said macromolecules). The structural features of the layer forming macromolecules(s) is in turn determined by synthesis. AMount and conformation and thus also biological activity of biological material (as e.g. polypeptides) which contact the novel biocompatible surface, is determined and maintained by the cooperative action of the underlying hydrophobic substratum and the macromolecular layer. In this way it becomes possible to maintain and control biological interactions between said contacted polypeptides and other biological compounds as e.g. cells, antibodies and the like. Consequently, the present invention aims to reduce and/or eliminate the deactivation and/or denaturation associated with the contacting of polypeptides and/or other biological

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 7 OF 11 USPATFULL on STN
T.4
AN
       2005:30367 USPATFULL
       Medical device with low magnetic susceptibility
ΤI
       Wang, Xingwu, Wellsville, NY, UNITED STATES
IN
       Greenwald, Howard Jay, Rochester, NY, UNITED STATES
       US 2005025797
                               20050203
PΙ
                          A1
       US 2004-887521
                          Α1
                               20040707 (10)
ΑI
       Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun 2004,
RLI
       PENDING Continuation-in-part of Ser. No. US 2004-810916, filed on 26 Mar
       2004, PENDING Continuation-in-part of Ser. No. US 2004-808618, filed on
       24 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2004-786198,
       filed on 25 Feb 2004, PENDING Continuation-in-part of Ser. No. US
       2004-780045, filed on 17 Feb 2004, PENDING Continuation-in-part of Ser.
       No. US 2003-747472, filed on 29 Dec 2003, PENDING Continuation-in-part
       of Ser. No. US 2003-744543, filed on 22 Dec 2003, PENDING
       Continuation-in-part of Ser. No. US 2003-442420, filed on 21 May 2003,
       PENDING Continuation-in-part of Ser. No. US 2003-409505, filed on 8 Apr
       2003, GRANTED, Pat. No. US 6815609
DT
       Utility
       APPLICATION
FS
LREP
       HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST
       ROCHESTER, NY, 14445-2408
       Number of Claims: 137
CLMN
ECL
       Exemplary Claim: 1
DRWN
       42 Drawing Page(s)
LN.CNT 17461
AB
       An assembly that contains a medical device and biological material
       within which the medical device is disposed. The assembly has a magnetic
       susceptibility within the range of plus or minus 1+10.sup.-3
       centimeter-gram-seconds
     ANSWER 8 OF 11 USPATFULL on STN
L4
ΑN
       2004:321764 USPATFULL
ΤI
       Therapeutic assembly
       Wang, Xingwu, Wellsville, NY, UNITED STATES
IN
       Greenwald, Howard J., Rochester, NY, UNITED STATES
       Lanzafame, John, Victor, NY, UNITED STATES
       Weiner, Michael L., Webster, NY, UNITED STATES
       Connelly, Patrick R., Rochester, NY, UNITED STATES
PΙ
       US 2004254419
                         A1
                               20041216
                               20040614 (10)
       US 2004-867517
ДΤ
                          A1
       Continuation-in-part of Ser. No. US 2004-810916, filed on 26 Mar 2004,
RLI
       PENDING Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar
       2004, PENDING Continuation-in-part of Ser. No. US 2004-786198, filed on
       25 Feb 2004, PENDING Continuation-in-part of Ser. No. US 2004-780045,
       filed on 17 Feb 2004, PENDING Continuation-in-part of Ser. No. US
       2003-747472, filed on 29 Dec 2003, PENDING Continuation-in-part of Ser.
       No. US 2003-744543, filed on 22 Dec 2003, PENDING Continuation-in-part
       of Ser. No. US 2003-409505, filed on 8 Apr 2003, PENDING
       Continuation-in-part of Ser. No. US 2003-442420, filed on 21 May 2003,
       PENDING
DT
       Utility
FS
       APPLICATION
LREP
       HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST
       ROCHESTER, NY, 14445-2408
      Number of Claims: 175
CLMN
       Exemplary Claim: CLM-1-177
ECL
       40 Drawing Page(s)
DRWN
LN.CNT 16208
```

AB A therapeutic assembly that contains a therapeutic agent, a ctyotoxic radioactive material, and a nanomagnetic material with nanomagnetic particles. The nanomagnetic particles have an average particle size of less than about 100 nanometers; and the average coherence length between adjacent nanomagnetic particles is less than 100 nanometers. The nanomagnetic material has a saturation magentization of from about 2 to about 3000 electromagnetic units per cubic centimeter, a phase transition temperature of from about 40 to about 200 degrees Celsius, and a saturation magnetization of from about 2 to about 3,000 electromagnetic units per cubic centimeter

ANSWER 9 OF 11 USPATFULL on STN L4AN 2004:268745 USPATFULL TI Novel nanomagnetic particles Wang, Xingwu, Wellsville, NY, UNITED STATES IN Greenwald, Howard J., Rochester, NY, UNITED STATES PΙ US 2004210289 Α1 20041021 US 2004-808618 A1 20040324 (10) ΑI Continuation-in-part of Ser. No. US 2003-366082, filed on 13 Feb 2003, RLI PENDING Continuation-in-part of Ser. No. US 2002-324773, filed on 18 Dec 2002, PENDING Continuation-in-part of Ser. No. US 2002-90553, filed on 4 Mar 2002, PENDING Continuation-in-part of Ser. No. US 2002-229183, filed on 26 Aug 2002, PENDING Continuation-in-part of Ser. No. US 2002-242969, filed on 13 Sep 2002, PENDING Continuation-in-part of Ser. No. US 2002-260247, filed on 30 Sep 2002, GRANTED, Pat. No. US 6673999 Continuation-in-part of Ser. No. US 2002-273738, filed on 18 Oct 2002, PENDING Continuation-in-part of Ser. No. US 2002-303264, filed on 25 Nov 2002, GRANTED, Pat. No. US 6713671 Continuation-in-part of Ser. No. US 2002-313847, filed on 7 Dec 2002, PENDING Continuation-in-part of Ser. No. US 2002-303264, filed on 25 Nov 2002, GRANTED, Pat. No. US 6713671 DT Utility APPLICATION FS HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST LREP ROCHESTER, NY, 14445-2408 CLMN Number of Claims: 98 Exemplary Claim: 1 ECL DRWN 51 Drawing Page(s) LN.CNT 11684 AB A composition containing nanomagnetic particles. The, nanomagnetic particles have an average particle size of less than about 100 nanometers, a saturation magnetization of from about 2 to about 2,000 electromagnetic units per cubic centimeter, a phase transition temperature of from about 40 to about 200 degrees Celsius, and a squareness of from about 0.05 to about 1.0; the average coherence length between adjacent nanomagnetic particles is less than about 100

```
L4
     ANSWER 10 OF 11 USPATFULL on STN
       1999:36949 USPATFULL
ΑN
TТ
       Engineering oral tissues
IN
       Mooney, David J., Ann Arbor, MI, United States
       Rutherford, Robert B., Ann Arbor, MI, United States
       The Regents of the University of Michigan, Ann Arbor, MI, United States
PA
       (U.S. corporation)
PΙ
       US 5885829
                               19990323
ΑI
       US 1997-864494
                               19970528 (8)
       US 1996-18450P
PRAI
                           19960528 (60)
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Degen, Nancy
LREP
       Arnold, White & Durkee
       Number of Claims: 109
CLMN
```

nanometers; and the nanomagnetic particles are at least triatomic.

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ECL
       Exemplary Claim: 1
DRWN
       17 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 8001
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Disclosed are methods for regenerating dental and oral tissues from
AB
       viable cells using ex vivo culture on a structural matrix. The
       regenerated oral tissues and tissue-matrix preparations thus provided
       have both clinical applications in dentistry and oral medicine and are
       also useful in in vitro toxicity and biocompatibility testing.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 11 OF 11 WPINDEX COPYRIGHT 2006 THE THOMSON CORP on STN
AN
     2004-191035 [18]
                        WPINDEX
DNC
     C2004-075267
     Use of electron-beam radiation for
TI
     depolymerization of glycosaminoglycanes e.g. heparin,
     dermatan and heparansulfate.
DC
     A11 A96 B04
IN
     DE AMBROSI, L; GONELLA, S; IANNACONE, N; NESTI, S; TORRI, G; VISMARA, E;
     IANNACCONE, N
     (DERI-N) LAB DERIVATI ORGANICI SPA; (DAMB-I) DE AMBROSI L; (GONE-I)
PA
     GONELLA S; (IANN-I) IANNACCONE N; (NEST-I) NESTI S; (TORR-I) TORRI G;
     (VISM-I) VISMARA E
CYC
    103
ΡI
     WO 2004000886
                    A1 20031231 (200418) * EN
        RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS
            LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
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            KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
            RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA
            ZM ZW
     AU 2003279381
                    A1 20040106 (200447)
     EP 1572749
                    A1 20050914 (200560)
                                          EN
        R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
            MC MK NL PT RO SE SI SK TR
     US 2005240013
                   A1 20051027 (200571)
ADT WO 2004000886 A1 WO 2003-EP6446 20030618; AU 2003279381 A1 AU 2003-279381
     20030618; EP 1572749 A1 EP 2003-740278 20030618, WO 2003-EP6446 20030618;
     US 2005240013 A1 WO 2003-EP6446 20030618, US 2005-518980 20050531
FDT AU 2003279381 Al Based on WO 2004000886; EP 1572749 Al Based on WO
     2004000886
                          20020621
PRAI IT 2002-MI1372
     2004-191035 [18]
                       WPINDEX
AB
    WO2004000886 A UPAB: 20040316
    NOVELTY - Depolymerization of glycosaminoglycanes is carried out
    using electron-beam radiation.
         USE - For depolymerization of glycosaminoglycans
    e.g. heparin (claimed), which are natural products of high
    pharmaceutical interest.
         ADVANTAGE - The electron-beam radiation reduces
    molecular weight of glycosaminoglycanes without substantially modifying
    the chemical structure and can provide low to ultra-low molecular weight
    heparin with high S content.
    Dwq.0/0
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=> file caplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 73.13 73.34

FULL ESTIMATED COST

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http://www.cas.org/infopolicy.html

=> s Ambrosi Luigi De/AU

L5 0 AMBROSI LUIGI DE/AU

=> s De Ambrosi Luigi/AU

L6 17 DE AMBROSI LUIGI/AU

=> s 16 and glycosaminoglycan or heparin

10505 GLYCOSAMINOGLYCAN

12709 GLYCOSAMINOGLYCANS

15465 GLYCOSAMINOGLYCAN

(GLYCOSAMINOGLYCAN OR GLYCOSAMINOGLYCANS)

47654 HEPARIN

1838 HEPARINS

47777 HEPARIN

(HEPARIN OR HEPARINS)

L7 47777 L6 AND GLYCOSAMINOGLYCAN OR HEPARIN

=> s 16 and glycosaminoglycan

10505 GLYCOSAMINOGLYCAN

12709 GLYCOSAMINOGLYCANS

15465 GLYCOSAMINOGLYCAN

(GLYCOSAMINOGLYCAN OR GLYCOSAMINOGLYCANS)

L8 5 L6 AND GLYCOSAMINOGLYCAN

=> dis 18 1-5 bib abs

L8 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1036909 CAPLUS

DN 141:406140

TI Glycosaminoglycans for treatment emotional dysfunctions

IN Cornelli, Umberto; De Ambrosi, Luigi; Lorens, Stanley; Fareed, Jawed; Lee, John; Hanin, Israel; Mervis, Ronald

PA Italy

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|------|----------|-----------------|----------|
| | | | | | |
| ΡI | WO 2004103381 | A1 | 20041202 | WO 2004-EP50860 | 20040519 |

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             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
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             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
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                                            AU 2004-241748
                                                                    20040519
                          AA
                                20041202
                                            CA 2004-2526201
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                                                                   20040519
                                20060308
                                            EP 2004-741606
     EP 1631298
                          A1
                                                                   20040519
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     CN 1791416
                                            CN 2004-80013609
                          Α
                                20060621
                                                                    20040519
     NO 2005006089
                          Α
                                20060209
                                            NO 2005-6089
                                                                   20051221
PRAI IT 2003-MI1023
                          Α
                                20030521
     WO 2004-EP50860
                          W
                                20040519
     The invention discloses the use of glycosaminoglycan fractions
AB
     having an average mol. weight of 2400 D for the preparation of pharmaceutical
     suitable for the treatment of emotional dysfunctions, especially depressive
     disorders, anxiety disorders, anxiety neurosis, agitation, confusion.
              THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
L8
     ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
AN
     2004:960075 CAPLUS
DN
     141:397168
     Depolymerization of glycosaminoglycans by UV radiation
TI
IN
     De Ambrosi, Luigi; Vismara, Elena
PΑ
     Laboratori Derivati Organici S.P.A., Italy
SO
     Eur. Pat. Appl., 8 pp.
     CODEN: EPXXDW
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
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                                -----
                                           -----
                                                                   -----
PΙ
     EP 1475391
                         A1
                                20041110
                                          EP 2003-76388
                                                                   20030509
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             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     WO 2004099256
                                20041118
                          A1
                                           WO 2004-EP50723
                                                                   20040506
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
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                                20060405
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PRAI EP 2003-76388
                         Α
                                20030509
    WO 2004-EP50723
                         W
                                20040506
AΒ
    Glycosaminoglycans with reduced mol. weight suitable for
    pharmaceutical applications were manufactured by depolymn. of high-mol.-weight
    glycosaminoglycans using UVC radiation. For example, UV irradiation
```

of 10% aqueous solution of heparin Na salt (mol. weight 13,000 Da) for 16 at 30° gave a degraded product having mol. weight 5000 Da and showing anticoagulant activity 114 U/mg.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
L8
     2003:733067 CAPLUS
AN
DN
     139:247126
     Process for the depolymerization of glycosaminoglycans and
ΤI
     oligomer products
     Gonella, Sergio; De Ambrosi, Luigi; Vismara, Elena
IN
     Laboratori Derivati Organici S.p.A., Italy
PΑ
     Eur. Pat. Appl., 9 pp.
so
     CODEN: EPXXDW
DT
     Patent
    English
LA
FAN.CNT 1
                       KIND DATE
     PATENT NO.
                                         APPLICATION NO.
                       A1 20030917 EP 2002-425142
PΤ
     EP 1344781
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                                        CA 2003-2446695
                               20030918
                                                                 20030311
                        AA
     CA 2446695
                                         WO 2003-EP2462
                               20030918
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     WO 2003076474
                        A1
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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
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            KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
            FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                               20030922 AU 2003-218725
                                                                20030311
     AU 2003218725
                        A1
    EP 1404720
                               20040407
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                         A1
    EP 1404720
                         B1
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                                        JP 2003-574689
                    T2
                               20050707
    JP 2005520005
                                                               20030311
    AT 298349
                         E
                                          AT 2003-711967
                               20050715
                                                                 20030311
                                          PT 2003-711967
     PT 1404720
                        T
                               20051130
                                                                 20030311
                        T3
                                          ES 2003-3711967
                                                                20030311
    ES 2244929
                               20051216
                        A1
                                          US 2003-477293
                                                                20031110
    US 2004186279
                               20040923
PRAI EP 2002-425142
                        Α
                               20020312
    WO 2003-EP2462
                        W
                               20030311
os
    MARPAT 139:247126
AB
    The invention relates to a process for the depolymn. of
    glycosaminoglycans characterized using high-energy radiation in
    the presence of an organic compound selected from the group consisting of
    ethers, alcs., aldehydes, amides and formic acid. Intermediate depolymd.
    heparin having Mw 1000-5500, absorbance at 400 nm <0.300, and ratio
    SO3-/COO- equal to or higher than in the starting heparin. The
```

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

intermediate depolymd. heparin can be dissolved in a buffer solution and fractionated by gel permeation for obtaining the desired mol. weight

- L8 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2000:824113 CAPLUS

fraction.

- DN 133:366401
- TI Glycosaminoglycans having an average molecular weight equal to

```
2400 D suitable for the treatment of senile dementia
     Cornelli, Umberto; De Ambrosi, Luigi; Hanin, Israel; Fareed,
IN
     Jawed; Lee, John; Lorens, Stanley; Mervis, Ronald F.
PA
SO
     PCT Int. Appl., 29 pp.
     CODEN: PIXXD2
     Patent
DT
     English
LA
FAN.CNT 1
                       KIND DATE APPLICATION NO. DATE
     PATENT NO.
                        A1 20001123 WO 2000-EP4311 20000512
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     WO 2000069444
PΙ
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                20001114 IT 1999-MI1066
     IT 99MI1066
                         A1
                                                                   19990514
     IT 1312107
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                                20020404
                                                                 20000512
     CA 2373975
                         AA
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                         A1
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                                20050209
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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                         T2
                                20021224
                                           JP 2000-617903
     JP 2002544233
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                                20030828 AU 2000-44052
     AU 764743
                         B2
     AT 288761
                        E
                                20050215
                                          AT 2000-925281
                                                                  20000512
     RU 2248800
                        C2
                                20050327
                                          RU 2001-130882
    PT 1181024 T 20050630 PT 2000-925281
ES 2237425 T3 20050801 ES 2000-925281
NO 2001005544 A 20020114 NO 2001-5544
ZA 2001009331 A 20020618 ZA 2001-9331
HK 1039903 A1 20050826 HK 2002-101550
                                                                 -20000512
                                                                  20011113
                                                                  20011113
     HK 1039903
                                                                  20020228
                                           US 2002-48542
     US 6979680
                        B1
                                20051227
                                                                  20020405
PRAI IT 1999-MI1066
                        Α
                                19990514
     WO 2000-EP4311
                        W
                                20000512
     The present invention relates to the use of glycosaminoglycans
     having an average mol. weight equal to 2,400 D for the preparation of
pharmaceutical
     compns. suitable for the treatment of senile dementia, in particular for
     the treatment of Alzheimer's disease or SDAT (Senile Dementia Alzheimer's
     Type) and of the cerebral neurol. lesions from ictus and from traumas.
             THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
L8
     1989:141519 CAPLUS
AN
DN
     110:141519
     Controlled preparation of low molecular weight glucosaminoglycans
ТT
IN
     Ferrari, Gianni; Recchia, Walter; De Ambrosi, Luigi
     Mediolanum Farmaceutici S.r.l., Italy; Laboratori Derivati Organici S.p.A.
PA
SO
     Eur. Pat. Appl., 10 pp.
     CODEN: EPXXDW
DT
     Patent
T.A
    English
FAN.CNT 1
    PATENT NO.
                      KIND DATE
                                          APPLICATION NO.
                               -----
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                                           -----
    EP 269937
                                           EP 1987-116862
                        A2
                               19880608
PΙ
                                                                 19871116
                       A3
    EP 269937
                               19890308
                        B1 19910220
    EP 269937
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R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE
     NO 8704777 A
                               19880525 NO 1987-4777 19871116
                                                                   19871116
                                            US 1987-120953
     US 4987222
                          Α
                                 19910122
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     AT 60924
                         E
                                 19910315 AT 1987-116862
                                 19880915 DK 1987-6023
19880526 AU 1987-81609
     DK 8706023
                         Α
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                     A 19880915 DR 1987-8025
A1 19880526 AU 1987-81609 19871123
B2 19901122
A1 19920714 CA 1987-552481 19871123
A 19880525 FI 1987-5185 19871124
B 19921215
C 19930325
A2 19880906 JP 1987-294255 19871124
B4 19931224
A 19861124
     AU 8781609
     AU 603622
     CA 1305134
     FI 8705185
     FI 88045
     FI 88045
     JP 63213502
JP 05088881
     EP 1987-116862 A 19861124
PRAI IT 1986-22434
     Glucosylaminoglycans with mol. weight 1000-35,000 and antithrombotic,
     fibrinolytic, antiatherogenic, anti-inflammatory, and heparin cofactor II
     activation activities are manufactured by static or dynamic stepwise
     \gamma-irradiation of high-mol.-weight glucosaminoglycans, e.g., Na heparin (I),
     at doses 2.5-20 Mrads with cooling between the steps. I 16 q was
     irradiated with successive treatments of 2.5 Mrads each to a total of 17.5
     Mrads, and worked uptto give a powder, which was purifd. by reverse
     osmosis and a Sephadex 50 column to give 5 g product. A Na salt of the
     purified product (mol. weight 5000) exhibited heparin activity 20 U/mg USP,
     active-partial-thromboplastin-time activity 15 U/mg, organic S content 10.8%,
     uronic acid content 24.7%, and rotary power 49°.
=> s Iannaccone Nicola/AU
             O IANNACCONE NICOLA/AU
=> s Gonella Sergio/AU
            10 GONELLA SERGIO/AU
=> dis 110 1-10 bib abs
L10 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
     2006:229587 CAPLUS
AN
DN
     144:275933
     One-step process for sulfation and depolymerization of chondroitin
TТ
IN
     Gonella, Sergio; Bensi, Donata; Maggia, Giorgio
PA
     Laboratori Derivati Organici S.p.A., Italy
SO
     Eur. Pat. Appl., 5 pp.
     CODEN: EPXXDW
DT
     Patent
LA
     English
FAN.CNT 1
                       KIND DATE APPLICATION NO.
     EP 1634893 A1 22-
     PATENT NO.
                                            -----
                         A1 20060315 EP 2004-104404 20040913
PΤ
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
                                           JP 2005-117569
     JP 2006077227 A2 20060323
                                                                    20050414
PRAI EP 2004-104404
                         Α
                               20040913
     The invention concerns a process for the preparation of chondroitin polysulfate
     with intrinsic viscosity 0.09-0.18 and organic sulfur content 25.8-37.3 %,
     wherein chlorosulfonic acid is added to a formamide solution of chondroitin
     at a rate such that the temperature of the formamide solution is kept at
     15°-40°. The activity of the obtained chondroitin
     polysulfate in the inhibition of Hyaluronidase is between 14 and 29.
              THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 4
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
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L10 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

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DN
     142:375459
     Multistep process for the physical depolymerization of heparin and
ΤI
     products obtained therefrom
     De Ambrosi, Luigi; Gonella, Sergio; Bensi, Donata; Torri,
IN
     Giangiacomo; Bisio, Antonella; Vismara, Elena
PA
     Laboratori Derivati Organici S.P.A., Italy
SO
     Eur. Pat. Appl., 11 pp.
     CODEN: EPXXDW
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                        KIND
                               DATE
                                           APPLICATION NO.
                                                                  DATE
                        A1 20050420 EP 2003-23377
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                                                                  _____
                                                                  20031016
PΙ
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
                                           WO 2004-EP52531
                                                                  20041013
     WO 2005035587
                         A2
                               20050421
     WO 2005035587
                         Α3
                               20050616
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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            AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
                         A2
                              20060705 EP 2004-804499
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
PRAI EP 2003-23377
                               20031016
                         Α
     WO 2004-EP52531
                         W
                               20041013
AB
     In the process heparin is subjected to at least two \gamma-ray
     irradiations and wherein between 2 irradiation steps the depolymd. heparin is
     subjected to a separation step and only a fraction of the depolymd. heparin
     obtained from the first irradiation is subjected to the second irradiation
step.
     It is also directed to heparin-derived oligosaccharide fractions
     obtainable by the process of the invention.
RE.CNT 4
             THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 3 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
L10
ΑN
     2004:2921 CAPLUS
DN
     140:61261
ΤI
     Radiation process for the physical depolymerization of glycosaminoglycanes
     and products obtained therefrom
IN
     De Ambrosi, Luigi; Iannacone, Nicola; Gonella, Sergio; Vismara,
     Elena; Nesti, Solitario; Torri, Giangiacomo
    Laboratori Derivati Organici S.P.A., Italy; De Ambrosi, Luigi
PA
SO
     PCT Int. Appl., 15 pp.
     CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                        KIND
                               DATE
                                           APPLICATION NO.
                               -----
                                           -----
ΡI
                                          WO 2003-EP6446
    WO 2004000886
                        A1
                               20031231
                                                                  20030618
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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AN

2005:345925 CAPLUS

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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2488089
                          AA
                                20031231
                                           CA 2003-2488089
                                                                    20030618
                                            AU 2003-279381
                                                                    20030618
     AU 2003279381
                          A1
                                20040106
                                            EP 2003-740278
                                                                    20030618
     EP 1572749
                          Α1
                                20050914
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     US 2005240013
                         A1
                                20051027
                                            US 2005-518980
                                                                    20050531
PRAI IT 2002-MI1372
                          Α
                                20020621
     WO 2003-EP6446
                          W
                                20030618
     MARPAT 140:61261
OS
     The invention relates to a process for the depolymn. of
     glycosaminoglycanes characterized by the use of electron beam radiation,
     optionally in the presence of an organic compound selected from the group
     consisting of ethers, alcs., aldehydes, amides and formic acid. The
     invention also relates to the intermediate depolymd. heparin obtained by
     the process. The intermediate depolymd, heparin can be dissolved in a
     buffer solution and fractionated by Gel Permeation for obtaining the desired
     mol. weight
RE.CNT 8
              THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
     2003:998783 CAPLUS
ΑN
DN
     140:357575
TT
     Controlled \gamma-ray irradiation of heparin generates oligosaccharides
     enriched in highly sulfated sequences
     Bisio, Antonella; Guglieri, Sara; Frigerio, Marta; Torri, Giangiacomo;
AU
     Vismara, Elena; Cornelli, Umberto; Bensi, Donata; Gonella, Sergio
     ; De Ambrosi, Luigi
CS
     Istituto di Ricerche Chimiche e Biochimiche G. Ronzoni, Milan, 20133,
SO
     Carbohydrate Polymers (2004), 55(1), 101-112
     CODEN: CAPOD8; ISSN: 0144-8617
PB
     Elsevier Science B.V.
DT
     Journal
     English
LA
AB
     Controlled phys. depolymn. of heparin was performed in aqueous solution in the
    presence of isopropanol by γ-irradiation Isopropanol both makes
     selective the radical-induced scission of the glycosidic linkage involved
     in the depolymn. and acts as hydrogen donor scavenger of heparin
     intermediate radicals that usually result in UV-absorbing byproducts.
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Several prepns. of heparin-derived oligosaccharides (HDO) were reproducibly obtained from different unfractionated heparins (UFH). From each preparation, an intermediate fraction with an average mol. weight of about 2200

Da $(\gamma\text{-HDO})$ was isolated by gel permeation chromatog. and its sulfation pattern was characterized by NMR spectroscopy. The comparison of the sulfation pattern of HDO with that of parent UFHs revealed a significant decrease in the relative content of D-glucuronic acid with respect to the total amount of uronic acid. Further γ -ray treatments of heparin chains that survived the first depolymn. procedure led to a further decrease of D-glucuronic acid and also slightly reduced the content of N-acetyl-glucosamine residues, thus enriching oligosaccharide chains in the highly sulfated sequences. MALDI mass spectrometric anal. of oligomeric components indicated that γ -HDO prevalently contains highly sulfated chains (tetra- to deca-saccharides, including both odd and even number of mono-saccharidic units) chiefly constituted of repeating sequences of the tri-sulfated disaccharide L-iduronic acid 2-sulfate

(1,4)-D-glucosamine-N,6-disulfate. γ -Irradiation in the presence of isopropanol thus generated heparin fragments largely preserving the prevalent structure of the parent heparin and involved glucuronic acid as the major site of cleavage. This procedure was repeated twice. All the products obtained have been structurally characterized and compared with parent UFHs also in terms of mol. weight distribution and anticoagulant (antifactor Xa) activity in vitro.

THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 29 ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 5 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
L10
     2003:733067 CAPLUS
AN
DN
     139:247126
TI
     Process for the depolymerization of glycosaminoglycans and oligomer
    products
    Gonella, Sergio; De Ambrosi, Luigi; Vismara, Elena
IN
    Laboratori Derivati Organici S.p.A., Italy
PΑ
SO
    Eur. Pat. Appl., 9 pp.
    CODEN: EPXXDW
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                                         APPLICATION NO.
                       KIND DATE
                            -----
                                         ------
                        A1 20030917 EP 2002-425142
PΙ
    EP 1344781
                                                                 20020312
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                             20030918
                                         CA 2003-2446695
    CA 2446695
                       AA
                                                                 20030311
                                          WO 2003-EP2462
    WO 2003076474
                        A1
                              20030918
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
            RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
            VN, YU, ZA, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
            KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
            FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    AU 2003218725
                        A1
                             20030922 AU 2003-218725
                                                                20030311
    EP 1404720
                        Α1
                              20040407
                                          EP 2003-711967
                                                                 20030311
    EP 1404720
                        B1
                              20050622
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os MARPAT 139:247126 The invention relates to a process for the depolymn. of glycosaminoglycans characterized using high-energy radiation in the presence of an organic compound selected from the group consisting of ethers, alcs., aldehydes, amides and formic acid. Intermediate depolymd. heparin having Mw 1000-5500, absorbance at 400 nm <0.300, and ratio SO3-/COO-equal to or higher than in the starting heparin. The intermediate depolymd. heparin can be dissolved in a buffer solution and fractionated by gel permeation for obtaining the desired mol. weight fraction.

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

JP 2003-574689

AT 2003-711967

PT 2003-711967

ES 2003-3711967

US 2003-477293

20030311

20030311

20030311

20030311

20031110

20050707

20050715

20051130

20051216

20040923

20020312

20030311

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 8 ALL CITATIONS AVAILABLE IN THE RE FORMAT

T2

Т3

A1

W

Α

E

T

JP 2005520005

AT 298349

PRAI EP 2002-425142

PT 1404720

ES 2244929

US 2004186279

WO 2003-EP2462

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AN 2002:72798 CAPLUS
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- DN 136:123693
- TI Composition containing heparin fractions with molecular weight equal to 5200D
- IN De Ambrosi, Luigi; Gonella, Sergio; Marcenaro, Francesca
- PA Italy
- SO U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

- DT Patent
- LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| | | | | | |
| ΡI | US 2002010152 | A1 | 20020124 | US 1998-213538 | 19981217 |
| PRAI | IT 1997-MI2835 | Α | 19971219 | | |

- AB A composition contains heparin fractions having reproducible characteristics with average mol. weight (MW) of 5200 D obtained by depolymn. with γ -radiation and subsequent fractionation by gel permeation, having high antithrombotic properties and particularly suitable for the prophylaxis and the therapy of the alterations of the plasmatic homeostasis. Thus, 100 g sodium heparin obtained from animal extraction, and having an activity equal to 190 U/mg and MW of 15,175D was dissolved in water and the solution was subjected to a 130 kGy- γ -ray irradiation. The irradiated solution was further purified in 3% NaCl. The solution was freeze dried and the product was fractionated on gel permeation chromatog.
- L10 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2001:858550 CAPLUS
- DN 137:98817
- TI Preserving the original heparin structure of a novel low molecular weight heparin by γ -irradiation
- AU Bisio, Antonella; De Ambrosi, Luigi; Gonella, Sergio; Guerrini, Marco; Guglieri, Sara; Maggia, Giorgio; Torri, Giangiacomo
- CS "G. Ronzoni" Institute for Chemical and Biochemical Research, Milan, 20133, Italy
- SO Arzneimittel-Forschung (2001), 51(10), 806-813 CODEN: ARZNAD; ISSN: 0004-4172
- PB Editio Cantor Verlag
- DT Journal
- LA English
- AB Several prepns. of low mol. weight heparins (LMWHs) obtained by phys. depolymn. (irradiation with γ -rays) of pig mucosal heparin have been characterized by mono- and two-dimensional NMR spectroscopy. Integration of typical 1H- and 13C-NMR signals provided a useful quantification of their sulfation pattern. The availability of the corresponding parent heparins showed that the original structure (including that of the active site for antithrombin, as also confirmed by affinity chromatog.) had not been significantly modified by the depolymn. procedure. This process involves only a slight decrease of undersulfated sequences. A pecularity of γ -LMWH is the absence of the "linkage region", commonly present in unmodified heparins and most LMWHs.
- RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1998:721473 CAPLUS
- DN 129:339870
- TI Complexes consisting of Fe(III), a polyhydroxylated compound, and ovalbumin, preparation thereof, and use in the treatment of sideropenic anemia
- IN Gonella, Sergio
- PA Laboratori Derivati Organici S.P.A., Italy
- SO Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

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DT
     Patent
LΑ
     English
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FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ____ -----_____ ----------EP 875249 19981104 EP 1998-107887 19980428 A1 EP 875249 B1 20030312

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRAI IT 1997-MI1012 19970430 Α

Organic complexes of Fe (III) are provided which consist of Fe (III), a polyhydroxylated compound (e.g. mannitol), and ovalbumin. The complexes of the invention are suitable for use in the treatment of sideropenic anemia. A process for producing the complexes is also disclosed.

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 5 ALL CITATIONS AVAILABLE IN THE RE FORMAT

- ANSWER 9 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1996:378875 CAPLUS
- DN 125:81007
- Characterization of sulfation patterns of beef and pig mucosal heparins by TI nuclear magnetic resonance spectroscopy
- Casu, Benito; Guerrini, Marco; Naggi, Annamaria; Torri, Giangiacomo; ΑU De-Ambrosi, Luigi; Boveri, Giuliano; Gonella, Sergio; Cedro, Armando; Ferro, Laura; et al.
- "G. Ronzoni" Inst. Chem. Biochem. Res., Milan, I-20133, Italy CS
- Arzneimittel-Forschung (1996), 46(5), 472-477 SO CODEN: ARZNAD; ISSN: 0004-4172
- PB Cantor
- DTJournal
- LA English
- Though differing only slightly in their degrees of sulfation, heparin AB prepns. from pig mucosa and those from beef mucosa have consistently different 13C- and 1H-NMR spectra, which provide useful fingerprints for distinguishing the two types of heparin. Integrated areas of NMR signals associated with minor, undersulfated sequences (assigned by comparison with mono-dimensional spectra of selectively desulfated heparins and by anal. of two-dimensional spectra of heparins prepared from pig and beef mucosa) permit quantitation of differences in sulfation patterns. Undersulfation of pig mucosal heparins at position 6 of the hexosamine units, determined by 13C-NMR and expressed as percent glucosamines nonsulfated at C6 referred to total glucosamines, is substantially lower for pig mucosal heparins than for beef mucosal heparins (16.9-21.7% vs 36.7-40.7%; average values: 18.6% vs 40.3%). By contrast, undersulfation at position 2 of the iduronic acid units, determined by 1H-NMR and expressed as percent nonsulfated iduronic acid referred to total (sulfated + nonsulfated) iduronic acid is significantly higher for pig mucosal prepns. (9.6-13.5% vs 2.1-2.7%; average values: 12.7% vs 2.3%). Pig mucosal heparins also have a significantly higher content of 3-O-sulfated glucosamine units, which are markers for the active site of heparin for antithrombin-III.
- L10 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1995:908227 CAPLUS
- DN 123:321954
- TI Differentiation of beef and pig mucosal heparins by NMR spectroscopy
- ΑU Casu, Benito; Guerrini, Marco; Naggi, Annamaria; Torri, Giangiacomo; De-Ambrosi, Luigi; Boveri, Giuliano; Gonella, Sergio
- G. Ronzoni Inst. for Chem. and Biochem. Res., Milan, Italy CS
- Thrombosis and Haemostasis' (1995), 74(4), 1205 SO CODEN: THHADQ; ISSN: 0340-6245
- PB Schattauer
- DT Journal
- LA English
- AB The structural characterization of title heparins by 13C-NMR spectroscopy

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=> s Vismara Elena/AU
            59 VISMARA ELENA/AU
L11
=> s lll and glycosaminoglycan
         10505 GLYCOSAMINOGLYCAN
         12709 GLYCOSAMINOGLYCANS
         15465 GLYCOSAMINOGLYCAN
                 (GLYCOSAMINOGLYCAN OR GLYCOSAMINOGLYCANS)
L12
             2 L11 AND GLYCOSAMINOGLYCAN
=> dis 112 1-2 bib abs
L12
     ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
AN
     2004:960075 CAPLUS
DN
     141:397168
ΤI
     Depolymerization of glycosaminoglycans by UV radiation
IN
     De Ambrosi, Luigi; Vismara, Elena
     Laboratori Derivati Organici S.P.A., Italy
PA
so
     Eur. Pat. Appl., 8 pp.
     CODEN: EPXXDW
DТ
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                           APPLICATION NO.
                                                                  DATE
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                         _ _ _ _
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                                          ______
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                              20041110 EP 2003-76388 .
PΙ
     EP 1475391
                         A1
                                                                 20030509
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     WO 2004099256
                         A1
                               20041118
                                          WO 2004-EP50723
                                                                  20040506
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
                                                                  20040506
     EP 1641831
                               20060405
                                          EP 2004-741520
                         A1
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
PRAI EP 2003-76388
                         Α
                                20030509
     WO 2004-EP50723
                         W
                                20040506
AB
     Glycosaminoglycans with reduced mol. weight suitable for
     pharmaceutical applications were manufactured by depolymn. of high-mol.-weight
     glycosaminoglycans using UVC radiation. For example, UV irradiation
     of 10% aqueous solution of heparin Na salt (mol. weight 13,000 Da) for 16 at
     30° gave a degraded product having mol. weight 5000 Da and showing
     anticoagulant activity 114 U/mq.
RE.CNT 5
              THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
AN
     2003:733067 CAPLUS
DN
     139:247126
ΤI
     Process for the depolymerization of glycosaminoglycans and
     oligomer products
IN
     Gonella, Sergio; De Ambrosi, Luigi; Vismara, Elena
PA
     Laboratori Derivati Organici S.p.A., Italy
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so
     Eur. Pat. Appl., 9 pp.
     CODEN: EPXXDW
DT
     Patent
LA
     English
FAN.CNT 1
                               DATE APPLICATION NO.
                                                                 DATE
                       KIND
     PATENT NO.
                               20030917 EP 2002-425142 20020312
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                        _ _ _ _
PΙ
     EP 1344781
                         A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
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                                          CA 2003-2446695
                                                                  20030311
     CA 2446695
                         AA
                         A1
                               20030918
                                           WO 2003-EP2462
                                                                  20030311
     WO 2003076474
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
             VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
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             FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                               20030922
                                         AU 2003-218725
     AU 2003218725
                         A1
                                                                 20030311
     EP 1404720
                         Α1
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                                          EP 2003-711967
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     EP 1404720
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     PT 1404720
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     ES 2244929
                        T3
                               20051216
                                           ES 2003-3711967
                                                                 20030311
     US 2004186279
                        A1
                               20040923
                                           US 2003-477293
                                                                  20031110
PRAI EP 2002-425142
                        Α
                               20020312
     WO 2003-EP2462
                         W
                               20030311
OS
     MARPAT 139:247126
AB ' The invention relates to a process for the depolymn. of
     glycosaminoglycans characterized using high-energy radiation in
     the presence of an organic compound selected from the group consisting of
     ethers, alcs., aldehydes, amides and formic acid. Intermediate depolymd.
     heparin having Mw 1000-5500, absorbance at 400 nm <0.300, and ratio
     SO3-/COO- equal to or higher than in the starting heparin. The
     intermediate depolymd. heparin can be dissolved in a buffer solution and
     fractionated by gel permeation for obtaining the desired mol. weight
     fraction.
RE.CNT 8
             THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
=> s Nesti Solitario/AU
L13
            6 NESTI SOLITARIO/AU
=> dis 113 1-6 bib abs
     ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
ΑN
     2006:733709 CAPLUS
TI
     Inclusion complexes between a cyclodextrin derivative and insect
IN
     Ranaldo, Angelo Marco; Nesti, Solitario; Corsi, Leopoldo
     Pointex S.p.A., Italy
PA
     PCT Int. Appl., 44 pp.
so
     CODEN: PIXXD2
DT
     Patent
LA
     English
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FAN.CNT 1

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APPLICATION NO.
                                                                DATE
     PATENT NO.
                        KIND
                               DATE
                        A1 20060727 WO 2005-IT26
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ΡI
     WO 2006077604
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             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
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             KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ, TM
PRAI WO 2005-IT26
                               20050119
     The invention relates to a stable liquid water-based composition having a
     repellent activity toward insects, comprising an inclusion compound between
     a cyclodextrin derivative and a repellent. The invention also relates to a
     method of use of the composition for impregnating textile fibers and/or
     fabrics, so as to give them repellent activity.
              THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 4
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
L13
AN
     2006:33486 CAPLUS
     Apparatus and method for inserting and pre-feeding a sliver into a
TI
     spinning unit
     Nesti, Solitario; Barbieri, Marco; Colussi, Vittorio
IN
     Ministero Dell'istruzione, Dell'universita'e Della Ricerca, Italy
PΑ
SO
     PCT Int. Appl.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
                       KIND DATE APPLICATION NO.
     PATENT NO.
     WO 2006003679 A1 20060112 WO 2004-IT367
                                                                20040630
ΡI
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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             IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
             CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS,
             MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
            RU, TJ, TM
                               20040630
PRAI WO 2004-IT367
     Equipement (10) for inserting and prefeeding a sliver (N) into a feed
     opining (A) of a spinning unit (F). The sliver is contained in a spinning
     can (V) located at the spinning unit (F) and has an end (4) outside the
     can (V). The equipment (10) comprises means (6, 7, 8) for seizing an end
     (4) of the sliver (N) and pulling a terminal portion (5) of the end (4),
     means (13, 14) for tapering the remaining terminal portion (11a) of the
     end (4) of the sliver (N), means (9, 18) for seizing and moving the end
     (4) of the sliver (N) to insert the tapered terminal portion (17) into the
     feed opining (A) of the spinning unit (F) and corresponding activating
     means (32, 33, 34) to activate the seizing and pulling means (6, 7, 8),
     the tapering means (13, 14) and the seizing and moving means (9, 18).
     Means (35, 37) are provided to control the prefeeding of the sliver (N)
     into the feed opening (A) of the spinning unit (F).
RE.CNT 4
             THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
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L13
     ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
AN
     2004:895488 CAPLUS
ΤI
     Process and apparatus for the transformation of yarns
     Marrani, Pierluigi; Nesti, Solitario; Barni, Marcello;
IN
     Poggiali, Maurizio
     Unitech Textile Machinery S.P.A., Italy; Pecci Filati S.P.A.
PA
SO
     Eur. Pat. Appl.
     CODEN: EPXXDW
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                        KIND
                               DATE
                                          APPLICATION NO.
                                                                DATE
                                          _____
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                                         EP 2004-425185
ΡI
     EP 1471171
                        A2
                               20041027
                                                                 20040317
     EP 1471171
                        A3
                               20050914
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     US 2004216278
                        A1
                               20041104
                                         US 2004-802295
                                                                 20040317
     US 7013542
                         B2
                               20060321
PRAI IT 2003-FI116
                         Α
                               20030424
     Process for the mechanical transformation of a thread (F) of vegetable,
     animal or artificial or synthetic origin, characterized in that it
    includes abrading the thread (F) when the latter is supported in the air
     between two supports (55, 56).
    ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
L13
     2004:2921 CAPLUS
AN
DN
TI
     Radiation process for the physical depolymerization of glycosaminoglycanes
     and products obtained therefrom
IN
     De Ambrosi, Luigi; Iannacone, Nicola; Gonella, Sergio; Vismara, Elena;
     Nesti, Solitario; Torri, Giangiacomo
PΑ
     Laboratori Derivati Organici S.P.A., Italy; De Ambrosi, Luigi
SO
     PCT Int. Appl., 15 pp.
     CODEN: PIXXD2
DT
     Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                      KIND DATE APPLICATION NO.
                                                               DATE
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                              20031231 WO 2003-EP6446
ΡI
    WO 2004000886
                        A1
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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
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            KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
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    CA 2488089
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    AU 2003279381
                        A1
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    EP 1572749
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    US 2005240013
                       A1 20051027
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                                                                20050531
PRAI IT 2002-MI1372
                        Α
                              20020621
    WO 2003-EP6446
                        W
                              20030618
os
    MARPAT 140:61261
AB
    The invention relates to a process for the depolymn. of
    glycosaminoglycanes characterized by the use of electron beam radiation,
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optionally in the presence of an organic compound selected from the group

consisting of ethers, alcs., aldehydes, amides and formic acid. The invention also relates to the intermediate depolymd. heparin obtained by the process. The intermediate depolymd. heparin can be dissolved in a buffer solution and fractionated by Gel Permeation for obtaining the desired mol. weight

mol. weight RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT L13 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN 2003:812086 CAPLUS AN Unwinding and balloon-separating device for twisting/doubling machines for TIyarns Nesti, Solitario; Barbieri, Marco TN PA Tecnotessile Societa Nazionale Di Ricerca Tecnologica R.L., Italy PCT Int. Appl. SO CODEN: PIXXD2 DT Patent LA English FAN.CNT 1 KIND DATE APPLICATION NO. WO 2003085180 A1 PATENT NO. -----A1 20031016 WO 2003-IB1218 20030403 PΙ W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2003-219349 AU 2003219349 A1 20031020 20030403 PRAI IT 2002-UD74 U 20020404 WO 2003-IB1218 W 20030403 AB Unwinding-separating device (10) for twisting/doubling assemblies (20) for yarns (11) wound in bobbins (12), in which each of the yarns (11) defines a first inner segment (11a), and a second outer segment (11b) that under normal working conditions constitutes the balloon. The unwinding-separating device (10) is assembled rotatable in correspondence with one end of the bobbin (12) and comprises a first thread-guide element (14) in which the first inner segment (11a) of yarn passes. The first thread-guide element (14) is supported by a circular element (16) mounted coaxial with the bobbin (12). The circular element (16) is provided with separation means (13) able to separate the first inner segment (11a) from the second outer segment (11b) of the yarn. RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT L13 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN AN2003:752690 CAPLUS DN 139:262402 ΤI Free-radical functionalized polysaccharides Torri, Giangiacomo; Vismara, Elena; Alberti, Angelo; Bertini, Sabrina; Ciardelli, Gianluca; Gastaldi, Giuseppe; Nesti, Solitario PA Tecnotessile Societa Nazionale di Ricerca Tecnologica r.L., Italy; Instituto di Chimica E Biochimica "G. Ronzoni" SO Eur. Pat. Appl., 20 pp. CODEN: EPXXDW

PATENT NO. KIND DATE APPLICATION NO. DATE

DT

LA

FAN.CNT 1

Patent

English

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PΙ
     EP 1347000
                                 20030924
                                            EP 2002-425172
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     WO 2003078471
                                            WO 2003-EP2910
                                                                    20030320
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
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     EP 1492820
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                                           US 2003-506619
     US 2005108832
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                                20050526
                                                                    20030320
PRAI EP 2002-425172
                          Α
                                20020320
     WO 2003-EP2910
                          W
                                20030320
AB
     The invention concerns a method for functionalizing polysaccharides using
     a source or free radicals which forms stable radicals on the
     polysaccharide structure and wherein the formed radical reacts with a
     functionalized unsatd. compound, characterized in that the method comprises
     two steps: a first step, wherein the free radical on the polysaccharide
     chain is formed, and a second step, wherein said radical reacts with the
     unsatd. compound in the absence of the radical source. The invention also
     relates to the functionalized polysaccharide obtained by this process.
     The source of free radicals is a chemical source, namely Fenton's reagent, or
     a phys. source, namely cold plasma and electron beam radiation. The
     polysaccharides are selected from the group consisting of flax, cellulose,
     rayon, cotton, and starch. The polysaccharides can be also together with
     one or more natural or synthetic fibers, i.e., in combination with silk.
     polyamide, polyester, polyolefin, or acrylic fibers.
RE.CNT 3
              THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
=> s Torri Giangiaocomo/AU
             O TORRI GIANGIAOCOMO/AU
=> dis hist
     (FILE 'HOME' ENTERED AT 09:58:30 ON 10 AUG 2006)
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L2
          32089 S L1 AND HEPARIN
L3
            947 S L2 AND DEPOLYM?
L4
             11 S L3 AND (ELECTRON (A) BEAM)
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L5
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L6
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L7
          47777 S L6 AND GLYCOSAMINOGLYCAN OR HEPARIN
             5 S L6 AND GLYCOSAMINOGLYCAN
L8
             0 S IANNACCONE NICOLA/AU
L9
L10
            10 S GONELLA SERGIO/AU
            59 S VISMARA ELENA/AU
L11
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20020320

| L12 2 S L11 AND GLYCOSAMINOGLYCAN | | |
|-----------------------------------|--------------|----------------|
| C C NEGOT COLIMADIO / ALL | 2 S L11 AND | COSAMINOGLYCAN |
| L13 6 S NESTI SOLITARIO/AU | 6 S NESTI SC | ARIO/AU |
| L14 0 S TORRI GIANGIAOCOMO/AU | 0 S TORRI GI | IAOCOMO/AU |